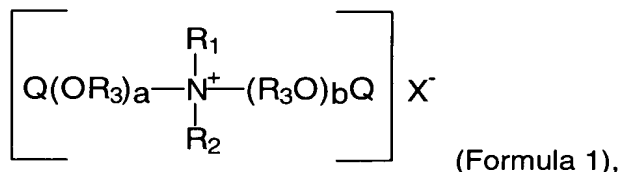


WHAT IS CLAIMED IS:

1. A rinse-added fabric treatment composition for increasing the rinsing capacity of an aqueous rinse bath solution, the composition comprising a rinse aid characterized in that when the composition is diluted in a rinse bath solution, said rinse bath solution has a rinsing capacity greater than 1, where water has a rinsing capacity of 1.
2. The fabric treatment composition of Claim 1, wherein the rinse bath solution has a rinse capacity greater than about 2.
3. The fabric treatment composition of Claim 1, wherein the rinse bath solution has a rinse capacity greater than about 2.5.
4. The fabric treatment composition of Claim 1, wherein the rinse aid comprises a pH control agent having an effective amount of an acid to reduce the pH of the rinse bath solution to less than about 6.5.
5. The fabric treatment composition of Claim 1, wherein the rinse aid comprises a pH control agent having an effective amount of an acid to reduce the pH of the rinse bath solution to less than about 5.75.
6. The fabric treatment composition of Claim 1, wherein the rinse aid comprises a pH control agent having an effective amount of an acid to reduce the pH of the rinse bath solution to less than about 5.
7. The fabric treatment composition of Claim 1, wherein the rinse aid comprises a suds suppression system having an anti-foaming agent, the suds suppression system comprising from about 0.01% to about 99% by weight of the fabric treatment composition.
8. The fabric treatment composition of Claim 7, wherein the anti-foaming agent is selected from the group consisting of silicone compounds, polyethylene glycol derivatives, fatty acids and their salts, high molecular weight hydrocarbons,

copolymers of ethylene oxide and propylene oxide, secondary alcohols, mono-alkyl quaternary ammonium compounds, and mixtures thereof.

9. A rinse-added fabric treatment composition for reducing surfactant residue on a fabric comprising:
 - A. a residue reduction agent selected from the group consisting of a cationic residue reduction agent, a zwitterionic residue reduction agent, and a combination thereof;
 - B. a suds suppression system; and
 - C. the balance adjunct ingredients.
10. The rinse-added fabric treatment composition of Claim 9, wherein when the composition is added to water to form a rinse bath solution, and wherein when the fabric is contacted with the rinse bath solution, the rinse bath solution has a rinsing capacity of at least about 2.
11. The composition of Claim 9, where the adjunct ingredients further comprise a pH control agent which provides the rinse bath solution with a pH of less than about 6.5.
12. The composition of Claim 9, wherein the residue reduction agent has the formula:



wherein R_1 is a C_{12-15} alkyl group, wherein R_2 is methyl, wherein each R_3 is ethyl, wherein each Q is H, wherein a is about 7.5, wherein b is about 7.5, and wherein X^- is chloride.

13. The composition of Claim 9, wherein the composition comprises, by weight, from about 0.05% to about 10% residue reduction agent.

14. The fabric treatment composition of Claim 9, wherein the suds suppression system comprises an anti-foaming agent selected from the group consisting of silicone compounds, polyethylene glycol derivatives, fatty acids and their salts, high molecular weight hydrocarbons, copolymers of ethylene oxide and propylene oxide, secondary alcohols, mono-alkyl quaternary ammonium compounds, and mixtures thereof.
15. A method for increasing the rinsing capacity of water, comprising the step of adding an effective amount of a fabric treatment composition according to Claim 5 to water to form a rinse bath solution.
16. A method for reducing surfactant residue on a fabric comprising the steps of:
 - A. adding the rinse-added fabric treatment composition of Claim 9 to water to form a rinse bath solution; and
 - B. contacting the fabric comprising surfactant residue with the rinse bath solution to reduce the surfactant residue.
17. A method for reducing surfactant residue on a fabric via a chaperone mechanism comprising the steps of:
 - A. providing a fabric comprising surfactant residue;
 - B. providing a rinse-added fabric treatment composition of Claim 9 comprising a residue reduction agent comprising a hydrophilic portion and a surfactant-attracting portion selected from the group consisting of a hydrophobic moiety, an alkoxy moiety, a charged moiety, and a combination thereof;
 - C. adding the rinse-added fabric treatment composition to water to form a rinse bath solution; and
 - D. contacting the fabric comprising surfactant residue with the rinse bath solution to form a non-covalent bond between the surfactant residue and the surfactant-attracting portion; and
 - E. pulling the surfactant residue and the residue reduction agent from the fabric and into the rinse bath solution via the hydrophilic portion.

18. The method of Claim 17, wherein the rinse bath solution has a rinsing capacity of at least about 2.
19. The method of Claim 17, wherein the surfactant-attracting portion is a charged moiety.
20. A method for reducing the amount of water used in the rinsing step of a laundry process, comprising the steps of:
- A. providing a rinse-added fabric treatment composition of Claim 9;
 - B. providing a fabric comprising surfactant residue thereupon;
 - C. adding the rinse-added fabric treatment composition to water to form a rinse bath solution; and
 - D. rinsing the fabric in the rinse bath solution,
- wherein the rinse water reduction is at least about 25%, as measured according to the rinse water reduction test.
21. A kit for improving the rinsing capacity of water comprising:
- A. a rinse-added fabric treatment composition of Claim 9 comprising a rinse aid therein; and
 - B. an instruction set.
22. A kit according to Claim 21, wherein the instruction set comprises a recommendation to:
- A. add the rinse-added fabric treatment composition to water to form a rinse bath solution;
 - B. add a fabric to the rinse bath solution;
 - C. agitate and/or manipulate the fabric in the rinse bath solution; and
 - D. remove the fabric from the rinse bath solution.
23. A method for improving the whiteness of fabrics during the laundering of those fabrics, the method comprising the steps of:
- A. washing the fabrics in a detergent; and
 - B. rinsing the fabrics in a rinse bath solution, said rinse bath solution containing an effective amount of the fabric treatment composition of

Claim 9, the fabric treatment composition containing less than about 1% bleach.

24. A method for improving the softness of fabrics during the laundering of those fabrics, the method comprising the steps of:
- A. washing the fabrics in a detergent; and
 - B. rinsing the fabrics in a rinse bath solution, said rinse bath solution containing an effective amount of the fabric treatment composition of Claim 9, the fabric treatment composition containing less than about 1% of a cationic fabric softener compound.
25. A method for removing stains and/or soils from fabrics during a laundering operation, the method comprising the steps of:
- A. washing the fabrics in a detergent; and
 - B. rinsing the fabrics in a rinse bath solution, said rinse bath solution containing an effective amount of the fabric treatment composition of Claim 9, the fabric treatment composition containing less than about 1% of a detergent surfactant.
26. A method for removing soils and/or stains from fabrics during a pre-washing operation, the method comprising the step of contacting the fabrics with the fabric treatment composition of Claim 9.
27. The method of Claim 22, wherein the soiled fabrics are in contact with the fabric treatment composition for at least about 5 seconds.
28. The method of Claim 23, wherein the fabric treatment composition is diluted with water in a ratio of between about 1:200 to about 1:600.
29. The method of Claim 24, wherein the soiled fabrics are in contact with the dilute solution for at least about 1 minute.
30. A rinse bath solution comprising:
- A. water; and

B. an effective amount of the fabric treatment composition of Claim 9.

31. The rinse bath solution of Claim 26, wherein the pH of the rinse bath solution is less than about 6.5.

FILED 2023/08/01